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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/763,206	01/26/2004	Minoru Nakamura	018775-891	6431

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EXAMINER

RODEE, CHRISTOPHER D

ART UNIT	PAPER NUMBER
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1756

DATE MAILED: 04/25/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/763,206

Applicant(s)

NAKAMURA ET AL.

Examiner

Christopher RoDee

Art Unit

1756

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 10 March 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-6, 8-10, 13-17 and 23-36 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-6, 8-10, 13-17, 23-25 and 27-29 is/are allowed.
- 6) ☒ Claim(s) 30-36 is/are rejected.
- 7) ☒ Claim(s) 26 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: \_\_\_\_\_

**DETAILED ACTION*****Claim Objections***

Claim 9 is objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form. Claim 9 fails to further limit claim 1 as amended because claim 1 requires the first and second polyesters to have a glass transition temperature. Because the first polymer has a glass transition temperature it is not crystalline in nature. See the enclosed citation to *Polymer Science Dictionary* (p. 185). This text describes polymers with a glass transition temperature as amorphous in the third paragraph. The artisan would recognize that an amorphous polymer as non-crystalline and that it would not be composed of crystalline monomers, which would make the polymer crystalline. Because the first polyester resin in claim 1 has a T<sub>g</sub> it cannot be formed from a crystalline monomer as specified in claim 9. Claim 9, consequently, does not further limit claim 1.

Claims 26 and 35 are objected to because of the following informalities: each of these dependent claims states that the toner comprises "the binder resin, the colorant, and the infrared absorbing agent". However, each of the independent claims from which these claims depend specifies additional components (i.e., waxes) as part of the toner. For improved clarity, the Examiner suggests that the dependent claims additionally specify the appropriate waxes from the respective independent claims. Appropriate correction is required.

***Claim Rejections - 35 USC § 103***

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claims 30-36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Daimon *et al.* in US Patent Application Publication 2003/0190545 in view of Yamashita *et al.* in US Patent Application Publication 2003/0027066.

These references were presented in the last Office action (see pp. 6-7) and the discussion of those references is incorporated here. Upon further consideration of Daimon, the Examiner notes that Daimon discloses various releasing agents as effective in the toner of that invention. These agents include low molecular weight polyethylene, polypropylene and polybutylene, as well as montanic acid ester waxes (§ [0286]). Diamond also teaches that combinations of the agents can be used as a mixture. Based on the disclosure in the specification on page 22, (§ [0050]), it appears that the montanic acid ester is a synthetic ester wax as required by the instant claims. Further, low molecular weight polyethylene, polypropylene and polybutylene release agents are well known in the art to be waxes because of their low molecular weight and because of their function as release agents.

Although the reference does not identically disclose a combination of release agents as specified in the instant claims, Daimon does disclose a release agent meeting the requirements of each of a polyolefin wax and a synthetic ester wax and also discloses that mixture of these waxes are effective. Given this disclosure the artisan would have found it obvious to use a combination of these waxes while also obtaining a relationship of loss elastic modulus and storage elastic modulus as specified in Toner 2 because this relationship is taught as effective.

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***Allowable Subject Matter***

Claims 1-6, 8-10, 13-17, 23-25, 27-29 are allowed.

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christopher RoDee whose telephone number is 571-272-1388. The examiner can normally be reached on most weekdays from 6:00 to 4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mark Huff can be reached on 571-272-1385. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

cdr  
21 April 2006



CHRISTOPHER RODEE  
PRIMARY EXAMINER